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“But Everybody Knows...”

MYTHS ABOUT DRINKING AND DRIVING



ADDICTION RESEARCH FOUNDATION OF ONTARIO
33 Russell Street, Toronto, Ontario M5S 2S1



This pamphlet was written by Bernard L. Boyle and Michael I. Stern
of the Addiction Research Foundation.



The AAA Foundation for Traffic Safety's "Drink, Drive, Rationalize"
program was used as a reference in the preparation of this booklet.
Drawings by Pat Oliphant have been used with permission.

PREFACE

This booklet presents 10 basic and widespread misconceptions about alcohol and the way it can affect ability to operate a motor vehicle. These misconceptions, or myths, are presented in the form of statements which reflect the attitudes many people hold towards alcohol—attitudes which are frequently based on inaccurate information. The purpose is to debunk these myths; not only by explaining how alcohol can impair abilities (**Current Knowledge**), but also by encouraging examination of attitudes and values associated with drinking and driving (**Questions**).

Unfortunately, many people are either uninformed or misinformed about the legal, personal, and financial risks of drinking and driving. Without accurate knowledge, drivers have no basis upon which to critically examine their own actions, and no opportunity to make responsible personal choices about mixing the two behaviors.

In addition to encouraging individual learning about alcohol and traffic safety, this material provides a basis for conducting group discussions on the topic. To help maximize the learning resulting from these situations, the following section specifically for use by group discussion leaders is included.

FOR GROUP DISCUSSION LEADERS

Begin by reading the misconception statements to the group. Then, help them to focus on both the information and attitudes presented in the statements. The **Questions** sections provide some sample questions which help to achieve this focus.

Experiences with this manual indicate that when the questions are used to foster discussion among the group members, rather than simply to elicit the correct answers, they will become personally involved in the topic. To help achieve this, some ideas concerning the direction and content of the discussion are offered in the sections entitled **Discussion Guidelines**.

In the sections entitled **Current Knowledge**, sufficient information is provided to enable the instructor to lead the discussion.

One of the objectives is to create a positive accepting atmosphere in which group members are encouraged to examine their own values and attitudes towards alcohol abuse. Therefore, while it is expected that group leaders will become familiar with the subject of alcohol and other drugs, it is hoped they will function as group stimulators and not simply as disseminators of information.

FOOD AND ALCOHOL



POPULAR MISCONCEPTION

"I'm not too drunk to drive, I had a huge dinner tonight."

OR

"I'll really be able to hold my booze tonight. I just finished a big meal."

QUESTIONS

1. Do you think statements like these are completely true or false?
2. How does eating influence a person's level of intoxication?
3. Why do many people accept statements like these to be completely true?

CURRENT KNOWLEDGE

Alcohol exercises its intoxicating effect when, through the circulating blood, it reaches the brain.

Unlike food, alcohol is rapidly absorbed into the blood without needing to be broken down by the process of digestion. Only a small percentage of the alcohol is absorbed through the stomach walls, the greatest amount being absorbed through the small intestine.

A full stomach retards the passage of alcohol into the small intestine because when the stomach is full of undigested food, the pyloric sphincter, which joins the stomach and the small intestine, contracts, delaying passage of both food and alcohol into the small intestine. Food and drink also dilute the concentration of alcohol in the small intestine, thereby reducing its rate of absorption into the blood.

If, however, sufficient alcohol is consumed, a person will become intoxicated even on a full stomach, partly because some alcohol will enter the bloodstream through the stomach wall, and also because some alcohol will reach the small intestine as the pyloric sphincter allows it to pass with digested food. Consequently, eating a big meal does not allow a person to drink heavily without becoming intoxicated.

DISCUSSION GUIDELINES

With questions #1 and #2, assist the group to discover the answers which match the material above in **Current Knowledge**.

With question #3, assist the group to examine why many of us unquestioningly believe food will keep us from becoming intoxicated. This often appears to be a rationalization for behavior we would recognize as unacceptable if we were to be honest with ourselves.

FOOD IN THE
STOMACH
DELAYS
ABSORPTION
OF ALCOHOL



...SO, NOT
'TIL YOU CLIMB
IN THE CAR
DO YOU "FEEL"
YOUR LIQUOR!

SWEATING YOURSELF SOBER



POPULAR MISCONCEPTION

"I couldn't get drunk today if I tried. It is so hot that I'm sweating the alcohol out as fast as I drink it."

OR

"Twenty minutes sweating in the sauna will sober me up enough to drive."

QUESTIONS

1. Can we sweat ourselves sober?
2. How do we get rid of the alcohol in our bloodstream?
3. Why are we so easily convinced that activities like working up a sweat or taking cold showers sober us up when we are intoxicated?

CURRENT KNOWLEDGE

Most alcohol leaves the bloodstream through a process called metabolic oxidation whereby it is broken down into carbon dioxide and water by the liver. Some of the alcohol, however, leaves the body through other routes of elimination, e.g. urine, breath, and perspiration. These routes generally account for elimination of 6% or less of any given dose of alcohol, although up to 10% may be eliminated in these ways if a high blood alcohol level is maintained. Therefore, it is almost impossible to sweat oneself sober.

DISCUSSION GUIDELINES

With questions #1 and #2, help the group distinguish between sweating water from our bodies and the extended process whereby alcohol leaves our bloodstream.

With question #3, have the group discuss the effects even small amounts of alcohol have on our judgment, and the rationalizations we go through to avoid recognizing when we are intoxicated.

WAYS ALCOHOL LEAVES THE BODY:

OXIDI-
ZATION
(LIVER)

BREATH

URINE

SWEAT

2%

2%

1%

95%



...AND
THAT'S
WITHOUT
AN
ANTI-PERSPIRANT!

"LIGHT" COCKTAILS



POPULAR MISCONCEPTION

"I'm okay to drive. All I drank tonight were light cocktails" (pink ladies, gimlets, sours, etc.).

OR

"I have to drive tonight, so put lots of mix in my drinks."

QUESTIONS

1. Why are the so-called light cocktails, and even beer, considered by many people to be weaker than hard liquor?
2. Are these drinks really weaker than other types of drinks?
3. Why do people disguise alcoholic drinks with mixes such as soda, fruit juice, etc?

CURRENT KNOWLEDGE

Regardless of what other liquids alcohol is mixed with, it continues to be absorbed into the bloodstream. There may be some reduction in the onset and intensity of alcohol's effects as a result of the delaying and diluting properties of some mixes. These reductions, however, are marginal. In fact, there is some evidence to suggest that certain carbonated beverages (especially sparkling wines and champagnes) may get from the stomach to the intestine more quickly than non-carbonated drinks.

Alcohol is a chemically irritating drink which can cause discomfort in the digestive tract and can lead to stomach irritation and bleeding in the intestines. Diluting drinks, or serving drinks with mixes, is therefore popular because the mixture makes them more palatable. This practice also makes sense from a health standpoint because some mixes (e.g. milk, water) reduce the alcohol's irritant effect on the lining of the digestive tract.

However, disguised or not, alcohol is an intoxicant and if enough is ingested, the consumer will end up drunk.

DISCUSSION GUIDELINES

For questions #1 and #2, have the group discuss the alcoholic content of various types of drinks and the different effects of carbonated and non-carbonated mixes.

For question #3, help the group examine the possible reasons people have for covering up or disguising the taste of alcohol.



“Maybe you’d better drive, dear. After all, you’ve had nothing but **LIGHT DRINKS** all evening!”



CAPACITY AND ABILITY

POPULAR MISCONCEPTION

"After years of drinking you can drink all you want without having to worry about being impaired."

OR

"I can drink those rookies under the table because I've had many years of practice."



QUESTIONS

1. What does it mean when we say that someone can really "hold his/her liquor"?
2. Would an experienced drinker always be less intoxicated than a new drinker who has consumed the same amount of alcohol in the same length of time?
3. Why do experienced drinkers often seem proud of the fact they can drink more than new drinkers and show it less?

CURRENT KNOWLEDGE

Clearly, individual differences do exist in the way people react to the intake of alcohol. The experienced drinker can adapt to alcohol's presence, to a certain degree. This adaptation occurs through **learning** and **tolerance**.

LEARNING

When repeatedly exposed to alcohol, people may learn to appear to be functioning normally even at moderately high levels of alcohol intake. They may walk and talk normally but certain less observable behaviors will be **impaired** — behaviors such as the exercise of fine motor control and precise judgment. Because they appear to have adapted **fully** to the higher levels of alcohol, they may undertake activities which depend on all skills and faculties being unimpaired. The results can be disastrous, especially in driving situations which require not only unimpaired physical skills but unimpaired decision-making powers.

TOLERANCE

There are two kinds of tolerance — metabolic and central nervous system (CNS).

Metabolic tolerance — The liver's process of breaking down alcohol becomes more efficient as regular drinking continues. Therefore, in order to maintain a sufficiently high level of blood alcohol to feel the mood-altering effects, more alcohol must be consumed.

CNS tolerance—The parts of the brain affected by alcohol become used to its presence and the psychoactive effects may diminish over time. Under conditions of CNS tolerance, the drinker may increase the amount of alcohol ingested in order to reinstate or enhance the mood-altering effects which were originally felt.

Often a chronic drinker will experience the effects of both metabolic and CNS tolerance and may have to appreciably increase the dose of ethanol to feel the desired effects.

Also of importance is the phenomenon known as "reverse tolerance." After chronic or long-term heavy use of alcohol, one's tolerance begins to be reduced. This occurs because alcohol damages body organs such as the brain and the liver. A deteriorated liver reduces the body's capacity to eliminate alcohol; and a damaged brain is more intensely affected by a given amount of alcohol. When this begins to happen, a person who for years has been able to have "a few drinks" and then drive without problems may now become seriously impaired after consuming the same or lesser amounts.

Being able to "hold your liquor" is often held as a positive value in our culture. Many people not only equate drinking with being adult, but also believe heavy drinking without showing any signs of intoxication is an indication of being strong, capable, and virile.

DISCUSSION GUIDELINES

For questions #1 and #2, it is important to help the group better understand the differences between tolerance and the ability to adapt to being intoxicated (explained above in **Current Knowledge**).

For question #3, have the group examine the values our culture places upon being able to "hold your liquor."

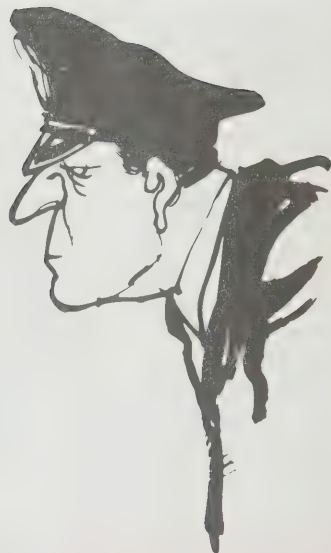
TOLERANCE:

The acquired capability
of not appearing to be as drunk
as you really are!



BEHIND THE WHEEL,
HOWEVER, THE
OLD PRO ISN'T
NEARLY AS
CONVINCING,
AN ACTOR!

KNOWING YOUR LIMIT



POPULAR MISCONCEPTION

"I'm not drunk. I know how much I can drink without it affecting me."

OR

"What do you mean, I shouldn't drive home. I didn't drink that much. I'm okay."

QUESTIONS

1. Why are we often unaware that we have had too much to drink?
2. If the law in Canada states that we are too impaired to drive with more than .08% alcohol in the blood then why do policemen have the right to charge a motorist with impaired driving even if the Breathalyzer reading is at or below .08%?

CURRENT KNOWLEDGE

We learn to adapt our behavior so that we can consume more alcohol and show less effect. It becomes both harder to notice and easier to deny that we are becoming intoxicated since the organ we use to alert us to signs of intoxication (i.e. the brain) is the first to become impaired. Consequently, it is extremely difficult for us to know or admit knowing the point at which we become impaired.

With the introduction of the Breathalyzer and laws which specify the exact legal point of impairment, this whole issue would seem to have become mechanical and quantifiable.

However, the Breathalyzer does not entirely solve the problems of distinguishing the impaired from the unimpaired driver. Impairment, in terms of driving, occurs quite frequently for people with blood alcohol levels below .08%. Current data suggest that significant impairment can begin with a blood alcohol level of .04%.

Because of this, a person may be charged with impaired driving (a different offense from driving with a blood alcohol content over .08%) even if his/her blood alcohol content is well below the legal limit.

Some factors which significantly increase driving impairment at any level of alcohol consumption are:

- mental state, e.g. nervousness, anger, anxiety;
- physical condition, e.g. fatigue, illness;
- presence of other mood-altering drugs in the blood, e.g. antihistamines (allergy medicines), sedatives (quieting drugs), hypnotics (sleeping pills), minor tranquilizers;
- poor driving conditions, e.g. decreased visibility, darkness, slippery roads;
- driver inexperience.

DISCUSSION GUIDELINES

For question #1, help the group examine the different variables involved in determining one's reactions to each drinking occasion, i.e. mood, fatigue, experience with alcohol, use of other drugs, etc.

For question #2, it is important to help the group differentiate between the level of legal impairment and actual impairment — above .08% is not always the same as the level of actual impairment.



"Listen, officer, I wouldn't think of going over my LIMIT when I'm about to drive... But, officer, you don't seem to understand, ...I know my limit!"



ALCOHOL AND SIZE



POPULAR MISCONCEPTION

"You might be bigger than me, but when it comes to drinking I can match you drink for drink."

OR

"Big guys are lucky. They can drink all night and never get too drunk to drive."

QUESTIONS

1. Does a small person really become intoxicated sooner than a large person who has had the same amount to drink? Why?
2. All other factors being equal, is a small person with .08% alcohol in the blood more or less intoxicated than a large person with the same BAC?
3. Why do some small men feel it is important to be able to hold their liquor as well as bigger men?
4. Why do most small women not feel the same about alcohol?

CURRENT KNOWLEDGE

Since a person's level of intoxication is influenced primarily by the percentage of alcohol in the blood, a small person becomes more intoxicated than a large person given the same amount of alcohol. However, even the heaviest person is not protected against intoxication by body size but will certainly, on a drink for drink basis, remain less intoxicated than a lighter person. (For the person who is unusually fat or unusually thin, this rule of thumb does not necessarily apply.)

DISCUSSION GUIDELINES

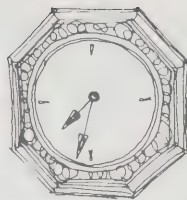
For questions #1 and #2, it is important to have the group understand that although a person's size does have some influence upon degree of intoxication, this influence is minor and large body size is not a protection against intoxication.

For questions #3 and #4, have the group examine our cultural values associating masculinity and drinking.

BODY SIZE
MAKES A
DIFFERENCE
BUT...
REMEMBER,
FAT
DOESN'T COUNT!



WAITING BEFORE DRIVING



POPULAR MISCONCEPTION

"I can drive home now; I haven't had a drink in the past 45 minutes."

OR

"Driving right after drinking is how you get into accidents. I always wait at least half an hour to sober up."

QUESTIONS

1. Can an intoxicated person sober up in half or three-quarters of an hour?
2. How long should a person wait after drinking, to be able to drive safely?

CURRENT KNOWLEDGE

Alcohol is eliminated from the body at a fixed rate. When alcohol is distributed throughout the body in the bloodstream, part of it, usually 2% to 6%, is eliminated in the breath, urine, and sweat. The rest is burned (oxidized) by the liver at a fixed rate of approximately one normal-sized drink per hour.* The safest approach is not to drink before driving. For those who do drink, consumption should be limited to one drink per hour throughout the evening to stay safely below .08% blood alcohol content. This is important from both a safety and legal standpoint.

*A normal-sized drink refers to: 12 oz beer, 5 oz table wine, 3 oz fortified wine, 1 1/2 oz distilled spirits.

DISCUSSION GUIDELINES

For questions #1 and #2, it is important for the group to understand that alcohol leaves the body at a fixed rate (explained more fully above) and that the amount of time a person waits before driving should be based upon this rate, and the amount of alcohol consumed. It is also important to emphasize that although the legal limit in Canada is .08%, it can be both unsafe and illegal to operate a motor vehicle with a lower BAC level.

A HALF HOUR WAIT IS JUST
LONG ENOUGH FOR
THAT LAST DRINK TO HIT YOU
ON THE WAY HOME



SOBERING UP WITH COFFEE



POPULAR MISCONCEPTION

"I know I've had quite a bit to drink, so just give me a black coffee and I'll be okay to drive."

OR

"When I want to sober up in a hurry, I drink lots of coffee and go for a walk in the fresh air."

QUESTIONS

1. What effects do such things as black coffee and fresh air have upon an intoxicated person?
2. How can an intoxicated person sober up?

CURRENT KNOWLEDGE

Attempts have been made to find ways to increase the rate at which alcohol is oxidized and thereby shorten or counteract intoxication. They have one thing in common. None of them works. Black coffee or other hot beverages, long walks, and fresh air do not change the rate at which alcohol is oxidized by the liver and therefore do not, in themselves, lower a person's level of intoxication. However, they are beneficial in that they provide an alternative to continued drinking.

Stimulants, such as coffee, merely counteract some of the alcohol's depressant action on the brain, turning a drowsy drunk into a wide-awake drunk who has the same problems performing in a variety of situations. This condition is especially dangerous if wakefulness is used as an index of sobriety.

DISCUSSION GUIDELINES

For question #1, have the group examine these and other home remedies used to try to sober up. Be sure the group understands why they **appear** to have a sobering effect on the intoxicated person.

For question #2, review with the group the process by which alcohol leaves the blood, being sure to emphasize the fact that this process **always** takes time.



THE IDEA
IS TO SWITCH
TO COFFEE
BEFORE
YOU'RE IN
YOUR CUPS!

DISGUISED ALCOHOL



POPULAR MISCONCEPTION

"This punch couldn't get me drunk—I can't even taste any alcohol in it."

OR

"Sure I've been drinking all night, but it was only punch. I'm okay to drive."

QUESTIONS

1. Why are punches often thought to be weaker than other drinks?
2. Do a host and hostess serving a powerful punch have any responsibilities towards their guests? What are these responsibilities?
3. How could we as hosts and hostesses behave more responsibly towards guests who have to drive home?

CURRENT KNOWLEDGE

The impact of alcohol is not affected by diluting its taste with mixes such as fruit juice. The danger is that people often fail to treat diluted or disguised alcohol with the caution or moderation it deserves.

Fruit punches are traditionally party drinks. On these occasions, many hosts and hostesses feel obliged to create punches that, while smooth tasting, are quite potent. They also, however, have clear-cut responsibilities to their guests before, during, and after the party.

Here are some suggestions, adapted from a pamphlet put out by the U.S. Department of Transportation, National Highway Traffic Safety Administration.

BEFORE THE PARTY

The best way to avoid the possibility of drunken driving after a party is to take some practical steps before the party begins. You, as host or hostess, can lessen the danger of alcohol abuse by the refreshments (food and drink) you serve, and the way in which you serve them.

- (a) **Always serve food with alcohol:** as described on page 4 a full stomach retards the passage of alcohol into the bloodstream, thereby slowing the rate at which intoxication occurs.
- (b) **Have several jiggers at the bar, so mixed drinks can be measured:** guests mixing their own drinks might well use an available jigger rather than pouring what seems to be the “right amount.” It is less likely they will drink to excess if standard measures for drinks are used.
- (c) **Have non-alcoholic drinks available for your guests:** have soft drinks, coffee, tea, or a non-alcoholic punch available for your guests who choose not to drink for personal or medical reasons.

DURING THE PARTY

- (a) **Don't force drinks on your guests:** under normal circumstances, the body can metabolize about one drink an hour. Although you want your guests to enjoy themselves, you don't want them to overdo it. Don't rush to refill their glasses the minute they become empty. Many guests accept drinks they don't want to avoid appearing rude.
- (b) **If you observe guests who are drinking too much:** try to engage them in conversation to slow their drinking. Offer food to slow down the rate at which their body is absorbing alcohol. Offer to mix their next drink, and make it a light one.
- (c) **Stop serving alcohol well before the party is to end:** top off the evening with snacks and coffee or tea. By emphasizing food and non-alcoholic drinks toward the end of the party, you give your guests extra time for their bodies to eliminate the alcohol they have consumed. With a lower alcohol content in their blood, it will be safer for them to drive home.

AFTER THE PARTY

Even under the best circumstances, there's always the chance some people will drink too much. If one of your guests has been drinking excessively, you should see to it that s/he does not drive. Here are a number of things you might do:

- (a) **Offer to drive your guest home:** s/he can always come back for the car at a later date—when sober.
- (b) **Suggest your guest stay overnight at your home:** the possibility of saving a friend's life should outweigh any inconvenience to you.
- (c) **Take away car keys, or use physical restraint:** this sounds a bit drastic, but if your friend is drunk, s/he is in no position to responsibly decide on a course of action. You must take charge.
- (d) **Call a taxi:** pay for the cab yourself. Your friend can't object to a free ride home.

DISCUSSION GUIDELINES

For question #1, review the way in which carbonated and fruit juice mixes are used to disguise the taste of alcohol.

For questions #2 and #3, help the group examine their social and moral responsibilities toward their guests, with particular attention to possible methods of keeping an intoxicated guest from driving home. It may be helpful here to outline the suggestions listed above to elicit reactions from the group.

IT'S ONLY BEER



POPULAR MISCONCEPTION

"No hard liquor for me tonight. I have to drive, so I'll just drink beer."

OR

"I used to worry about drinking and driving, but now I drink this 3% beer, or light beer, and I don't worry about driving any more."

QUESTIONS

1. Which of the following would have the greatest intoxicating effect on a person?
 - a shot of rye and ginger (1½ oz rye, 3 oz ginger)
 - a pint of beer (12 oz)
 - a glass of table wine (5 oz)
2. If "near beer" has 3% alcohol content, what is the alcohol content of regular beer?

CURRENT KNOWLEDGE

Beer with an alcohol content of approximately 3% has been sold in some parts of Canada and the U.S. for some time. A brewery in Ontario has recently begun to market 3% beer. However, in Ontario regular beer is approximately 5% alcohol.

The difficulty with these near beers is that people begin to view them as harmless drinks which do not require the caution usually given to regular beer or distilled alcohol. Unfortunately, regular beer itself is frequently not treated with the respect it deserves. How often have you heard someone say "It's only beer." That makes no more sense than saying "It's only Scotch," or "It's only wine." In terms of alcohol content...

12 oz beer = 5 oz table wine = 1½ oz liquor

They all pack the same punch. Light or near beer is somewhat less potent, but still, three of those are roughly equivalent to two "hard drinks."

DISCUSSION GUIDELINES

For question #1, help the group understand that although the alcohol percentages differ in these various drinks, the actual alcohol content is equivalent in these quantities.

For question #2, help the group understand that although the alcohol content in 3% beer is less than regular (5%), this does not provide protection against intoxication.



AVERAGE ALCOHOL
CONTENT IN
"REGULAR" BEER:
5%

12 OZ. OF BEER
EQUALS
1½ OZ. OF LIQUOR



ADDICTION RESEARCH FOUNDATION OF ONTARIO
33 Russell Street, Toronto, Ontario M5S 2S1